



Federal Aviation Administration

14 CFR Part 77

[Docket No. FAA-2004-16982; Notice No. 07-16]

Colo Void Clause Coalition; Antenna Systems Co-Location; Voluntary Best Practices

AGENCY: Federal Aviation Administration (FAA); Department of Transportation (DOT):

ACTION: Notification of amended policy.

SUMMARY: The FAA announces an amendment to its Colo Void policy. The FAA last revised its policy regarding the notification requirements and processes for evaluation of potential electromagnetic interference (EMI) for co-location of antenna systems on existing structures previously studied by the FAA on November 21, 2007. Based on an August 4, 2020 request from the Colo Void Clause Coalition (CVCC), the FAA finds that further modifications to this policy are necessary and appropriate. The FAA will add additional frequencies to the list of those not requiring notice to the FAA when added to an existing structure with a current No Hazard Determination.

DATES: This policy is effective [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

FOR FURTHER INFORMATION CONTACT: For specific questions related to the Colo Void policy, please contact the Spectrum Engineering Group, 202-267-7365.

SUPPLEMENTARY INFORMATION:

Background

Prior to April 2004, when the FAA issued a Determination of No Hazard to Air Navigation for proposed construction or alteration of an antenna structure, the Determination included the following condition: “This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates,

heights, frequency(ies) or use of greater power will void this determination. Any future construction or alteration, including an increase in heights, power, or the addition of other transmitters requires separate notice to the FAA.” As a result of this condition, a proponent seeking only to add frequencies to a previously studied structure for which the FAA had issued a Determination of No Hazard was required to file notice with the FAA. They had to file the notice on FAA Form 7460–1 in accordance with the previously discussed condition.

On April 27, 2004, the FAA published a revised policy regarding the notification requirements for co-locating antenna systems on existing structures previously studied by the FAA (69 FR 22732). The revised policy was based on a Best Practices Agreement recommended by the Colo Void Clause Coalition (CVCC).¹ Under this revised policy, a proponent was not required to file notices with the FAA for an aeronautical study to add certain frequencies to an existing structure that FAA issued a current Determination of No Hazard to Air Navigation.

In February 2006, the CVCC asked the FAA to consider amending its policy to include additional frequency bands. The CVCC also sought clarification of the condition in the 2004 policy requiring proponents to provide the FAA with an electronic copy of its antenna system location databases. On November 21, 2007, the FAA further amended the policy to add the requested frequencies (72 FR 65449). FAA also withdrew the condition requiring proponents to provide electronic copies of antenna system location databases because any unintentional electromagnetic interference resulting under the policy can be mitigated by condition 2 of the policy.²

On August 4, 2020, the CVCC requested that the FAA consider amending the November

¹ The CVCC represents wireless service providers and tower companies that together currently own or manage the majority of the radio towers throughout the United States.

² Condition 2-If an antenna system, operating in the designated frequency bands, causes EMI to one or more FAA facilities, the FAA will contact the proponent. The proponent must mitigate the EMI in a timely manner, as recommended by the FAA in each particular case. Depending upon the severity of the interference, the proponent must eliminate harmful EMI either by adjusting operating parameters, (for example, employing extra filtering or reducing effective radiated power), or by ceasing transmissions, as may be required by the FCC and the FAA. Failure to provide successful EMI mitigation techniques will result in referral to the FCC’s Enforcement Bureau for possible enforcement action. (69 FR 22732; April 27, 2004).

21, 2007 policy by including additional frequency bands not requiring notice to the FAA when co-located with previously studied structures with No Hazard determinations. The frequencies are those that the Federal Communications Commission (FCC) has authorized for use by wireless companies.³ The FCC reviewed the bands and associated technical rules to ensure their use of the bands would not cause harmful effects to other users operating in the same bands. Furthermore, many of these commercial radio frequency systems use technology that are industry and federally approved. The FAA agrees with the FCC's evaluation, and after careful review and coordination, has determined that it can include most of the requested additional frequencies by amending the current Colo Void policy. These additional frequencies will promote telecommunication and wireless services, while not negatively impacting either the safety or efficiency of civil flight.

Policy

The FAA recognizes the telecommunications industry's need and commitment to provide wireless services to the public. Also, the FAA recognizes that it is essential for these companies to speed up the time frame for build-out and deployment of their networks. However, the FAA's first commitment is to aviation safety. For that reason, the FAA finds that it can amend its policy to add most, but not all, of the frequencies requested by the CVCC. As has been the case with previous policy updates, the express notice requirements under part 77 of Title 14 Code of Federal Regulations (CFR) are not altered or modified. If the addition of frequencies is accompanied by an increase in the height of a previously studied structure, notice must be filed with the FAA as required by 14 CFR 77.9.⁴ Physical structures located on or near public use and other types of landing facilities defined in 14 CFR 77.9(d) raise concerns about possible obstruction to air navigation, and the FAA will handle these issues pursuant to current regulations and procedures.

Under this policy, a proponent is not required to file notice with the FAA to add frequencies to an existing structure that either has a current FAA issued Determination of No

³ AT&T, a member of the CVCC, separately requested the addition of the 3.45 GHz band.

⁴ This citation changed when the FAA amended part 77 in 2010 from § 77.13 to § 77.9.

Hazard to Air Navigation or otherwise does not meet notice criteria if the frequency is listed in this policy. If an additional antenna system must be used to add frequencies, the antenna system must not be located on Federal or public use landing facilities property.

Furthermore, the antenna system must not be co-located or mounted on an FAA antenna structure without prior coordination with the FAA's Spectrum Engineering Group. This policy to not require notice only applies to antenna systems operating on the following frequencies and service types, as dictated by various parts of 47 CFR. FAA is updating the policy to include additional frequencies. In some instances, the frequencies added by this notice are subject to designated power and bandwidth limitations. These limitations are specified where applicable. The new frequencies are designated with an asterisk.

- 698-806 MHz (Advanced Wireless Service-Part 27).
 - 806-821 MHz and 851-866 MHz (Industrial/Business/Specialized Mobile Radio Pool- Part 90).
- 816-820 MHz and 861-865 MHz (Basic Exchange Telephone Radio- Parts 1 and 22).
- 821-824 MHz and 866-869 MHz (Public Safety Mobile Radio Pool-Part 90).
- 824-849 MHz and 869-894 MHz (Cellular Radiotelephone-Parts 1 and 22).
- 849-851 MHz and 894-896 MHz (Air-Ground Radiotelephone-Parts 1).
- 896-901 MHz and 935-940 MHz (900 MHz SMR—Part 90).
- 901-902 MHz and 930-931 MHz (Narrowband PCS- Part 24).
- 929-930 MHz, 931-932 MHz, and 940-941 MHz (Paging- Parts 1, 22, and 90).
- 1670-1675 MHz (Wireless Communications Service-Part 27).
 - * 1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz (Advanced Wireless Service - Part 27; 3280 Watts effective isotropic radiated power (EIRP), No bandwidth limitations; largest spectrum block is 20 MHz).
 - 1710-1755 MHz, 2020-2025 MHz, and 2110-2180 MHz (Advanced Wireless Service- Part 27).
- 1850-1990 MHz (Broadband PCS- Part 24, Point-to-Point Microwave-Part 101).
- 1990-2000 MHz (Broadband PCS- Part 24).

- 2000-2020 MHz and 2180-2200 MHz (Mobile Satellite Service-Part 25).
 - 2305-2320 MHz and 2345-2360 MHz (Wireless Communications Service (WCS)-Part 27).
- 2320-2345 MHz (Satellite Digital Audio Radio Service-Part 27).
- 2496-2690 MHz (Broadband Radio Service-Part 27).
 - * 3.45 GHz (3450-3550 MHz Miscellaneous Wireless Communications Services – Part 27, 3280 watts/MHz EIRP, 20 MHz).
 - * 3.5 GHz (3550-3700 MHz Citizens Broadband Radio Service - Part 96; 47 dBm/10 MHz EIRP, 10 MHz).
 - * 5.9 GHz (5850-5925 MHz Dedicated Short- Range Communications Service -Part 90; 33 Watts EIRP and higher power level limited to state and local governmental entities).
- 6.0-7.0 GHz, 10.0-11.7 GHz, 17.7- 19.7 GHz, and 21.2-23.6 GHz (Fixed Microwave Service-Part 101).
- * 12 GHz (12200-12700 MHz Multichannel Video Distribution & Data Service- Part 101; +50 dBW EIRP, 500 MHz).
- * 24 GHz (24250-24450 MHz and 24750-25250 MHz Upper Microwave Flexible Use Service- Part 30; +75 dBm/100 MHz EIRP, 200 MHz/500 MHz).
- * 28 GHz (27500-28350 MHz Upper Microwave Flexible Use Service- Part 30; +75 dBm/100 MHz EIRP (mobile base stations), +85 dBm/100 MHz EIRP (fixed directional antenna stations), 850 MHz).
- * 29 GHz and 31 GHz (29100-29250 MHz and 31000-31300 MHz, 23 dBW/MHz EIRP (Point-to- Point Operations), 150 MHz).
 - * 37 GHz (37000-38600 MHz Upper Microwave Flexible Use Service- Part 30; +75 dBm/100 MHz EIRP (mobile base stations), +85 dBm/100 MHz EIRP (fixed directional antenna stations), 200 MHz).
 - * 39 GHz (38600-40000 MHz Upper Microwave Flexible Use Service- Part 30; +75 dBm/100 MHz EIRP (mobile base stations), +85 dBm/100 MHz EIRP (fixed directional antenna

stations), 200 MHz).

- * 47 GHz (47200-48200 MHz, Upper Microwave Flexible Use Service- Part 30; +75 dBm/100 MHz EIRP, 100 MHz).
- * 70 GHz (71000-76000 MHz Millimeter Wave Service- Part 101; +55 dBW EIRP, 5,000 MHz).
- * 80 GHz (81000-86000 MHz Millimeter Wave Service- Part 101; +55 dBW EIRP, 5,000 MHz).
- * 90 GHz (92000-94000 MHz and 94100-95000 MHz Millimeter Wave Service- Part 101; +55 dBW EIRP, 2,900 MHz).

In addition, the following conditions also apply to this Colo Void policy. First, if an antenna system, operating in the designated frequency bands, causes EMI to air navigation, including communication facilities and aviation radio frequency services, the FAA will contact the proponent. The proponents must mitigate the EMI in a timely manner, as recommended by the FAA in each particular case. Depending on the severity of the interference, the proponent must eliminate harmful EMI either by adjusting operating parameters (for example, employing extra filtering or reducing effective radiated power), or by ceasing transmissions, as may be required by the FCC and the FAA. Failure to provide successful EMI mitigation techniques will result in referral to the FCC's Enforcement Bureau for possible enforcement action. Second, this policy only applies to current technologies and modulation techniques (for example, analog, time division multiple access, and Global System Mobile Communications) existing in the wireless radiotelephone environment on the date of issuance of this policy. Any future technologies placed into commercial service by wireless service providers, although operating on the frequencies mentioned above, must provide notification to the FAA under 14 CFR part 77 procedures.

As has been the case with previous policy updates, the FAA will continue to revise the conditional language in future cases involving Determination of No Hazard to Air Navigation to reflect this policy. Furthermore, this policy applies retroactively to any structure for which the FAA has issued a Determination of No Hazard to Air Navigation.

Issued in Washington, DC on June 29, 2022.

Jeffrey Planty
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